

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A microelectromechanical system comprising:
substrate means for fabricating microelectromechanical components thereon;
platform means, fabricated on said substrate means, for supporting a desired optical element thereon, said platform means being elevatable in their entirety from said substrate means; and
at least one rotatable lever means, fabricated on said substrate means, for applying a tilting force to said platform means to achieve increased inclination of said platform means with respect to said substrate means in at least a first direction that is the same as a direction in which said lever means are rotatable, wherein said lever means are rotatable in response to an actuation force pulling on said lever means, said actuation force being mechanically coupled to said lever means and generated without utilizing any portion of said lever means and said platform means.

2. (Original) The microelectromechanical system of Claim 1 wherein said desired optical element comprises one of an optically reflective surface, a diffraction grating, a lens, and an optical polarizer.

3. (Original) The microelectromechanical system of Claim 1 further comprising:
actuation means, fabricated on said substrate means, for rotating said lever means.

4. (Original) The microelectromechanical system of Claim 3 wherein said actuation means comprise an electrostatic actuator.

5. (Original) The microelectromechanical system of Claim 1 wherein said substrate means comprises a silicon wafer.

6. (Original) The microelectromechanical system of Claim 1 wherein said platform means comprises a layer of one of monocrystalline and polycrystalline silicon deposited on said substrate means.

7. (Original) The microelectromechanical system of Claim 1 wherein said lever means comprise an A-frame structure.

8. (Original) The microelectromechanical system of Claim 1 further comprising:
first compliant means for attaching said lever means to said platform at a first attachment location; and

second compliant means for attaching said platform means to said substrate means at a second attachment location.

9. (Original) The system of Claim 8 wherein said first and second compliant means comprise springs.

10. (New) A microelectromechanical system comprising:
substrate means for fabricating microelectromechanical components thereon;
platform means, fabricated on said substrate means, for supporting a desired optical element thereon, said platform means being elevatable in their entirety from said substrate means; and
at least one rotatable lever means comprising an A-frame structure, fabricated on said substrate means, for applying force to said platform means to achieve inclination of said platform means in at least a first direction that is the same as a direction in which said lever means are rotatable.